

MARKED-UP VERSION OF CLAIMS

Claim 1 (amended) A catalyst comprising palladium, at least one alkali metal compound and, [if desired] optionally, at least one [or more promoters] promoter on a porous support, [obtainable] obtained by loading the porous support, which comprises a reducible metal oxide of elements of groups IIIb, IVb, Vb, VIb of the Periodic Table of the Elements or ZnO or comprises a mixture of these oxides or a mixed oxide of these elements in which zinc may also be present, with at least one palladium compound, subsequently carrying out [a] reduction at a temperature of 300-600°C and additionally applying at least one alkali metal compound and, [if desired] optionally, at least one [or more promoters] promoter before or after the reduction.

Claim 2 (amended) A catalyst [as claimed in] of claim 1 which comprises at least one potassium compound.

Claim 3 (amended) A catalyst [as claimed in] of claim 1 [or 2] which additionally comprises at least one member of the group consisting of Au, Ba, [and/or] Cd and[/or] their compounds as [promoters] promoter.

Claim 4 (amended) A catalyst [as claimed in one or more] of [claims 1 to 3] claim 1, wherein the reducible support is TiO<sub>2</sub>.

Claim 5 (amended) A catalyst [as claimed in one or more] of [claims 1 to 4] claim 1, wherein the reduction is carried out for [a time in the range from] 1 minute to 24 hours.

Claim 6 (amended) A catalyst [as claimed in one or more] of [claims 1 to 5] claim 1, wherein the reduction is carried out using gaseous or vaporizable reducing agents.

Claim 7 (amended) A catalyst [as claimed in one or more] of [claims 1 to 6] claim 1, wherein the reducing agent for the reduction is at least one member selected from the group consisting of H<sub>2</sub>, CO, ethylene, NH<sub>3</sub>, formaldehyde, methanol, hydrocarbons [and their mixtures] and mixtures of these reducing agents with inert gases.

Claim 8 (amended) A process for producing [catalysts, which comprises] a catalyst of claim 1, comprising loading the porous support, which comprises a reducible metal oxide of elements of groups IIIB, IVB, V, VIB of the Periodic Table of the Elements or ZnO or comprises a mixture of these oxides or a mixed oxide of these elements in which zinc may also be present, with at least one palladium compound, subsequently carrying out [a] reduction at a temperature of 300-600°C and additionally applying at least one alkali metal compound and, [if desired] optionally, at least one [or more promoters] promoter before or after the reduction.

Claim 9 (amended) The process [as claimed in] of claim 8, wherein the catalyst comprises at least one potassium compound.

Claim 10 (amended) The process [as claimed in] of claim 8 [or 9] wherein the catalyst additionally comprises at least one member of the group consisting of Au, Ba, [and/or] Cd and[/or] their compounds as promoters.

Claim 11 (amended) The process [as claimed in one or more] of [claims 8 to 10] claim 8, wherein the reducible support is  $\text{TiO}_2$ .

Claim 12 (amended) The process [as claimed in one or more] of [claims 8 to 11] claim 8, wherein the reduction is carried out [for a time in the range] from 1 minute to 24 hours.

Claim 13 (amended) The process [as claimed in one or more] of [claims 8 to 12] claim 8, wherein the reduction is carried out using gaseous or vaporizable reducing agents.

Claim 14 (amended) The process [as claimed in one or more] of [claims 8 to 13] claim 8, wherein the reducing agent for the reduction is at least one member selected from the group consisting of  $\text{H}_2$ , CO, ethylene,  $\text{NH}_3$ , formaldehyde, methanol, hydrocarbons [and their mixtures] and mixtures of these reducing agents with inert gases.